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MOTOROLA, INC.
LAW DEPARTMENT
1303 E. ALGONQUIN ROAD
SCHAUMBURG, IL 60196

EXAMINER	
WASEL, MOHAMED A	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/044,555
Filing Date: January 11, 2002
Appellant(s): ANDERSON ET AL.

Simon B. Anolick (Reg. No. 37,585)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on October 22, 2007 appealing from the Office action mailed on December 12, 2006.

(1) Real Party in Interest

A statement identified by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Dea et al, US Patent No. 5,742,833 issued on April 21, 1998 and Goodman et al, US Patent Application Pub. No. 2002/0097720 published on July 25, 2002.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dea et al, (hereinafter "Dea") U.S. Patent No. 5,742,833 in view of Goodman et al, (hereinafter "Goodman") U.S. Patent Application Pub. No. 2002/0097720.

1. As per claim 1, Dea teaches a method of communicating over a network bus, comprising:

a) routing registration information from a plurality of processor-enabled peripheral devices to a controlling software component (**col. 3 lines 20-24, col.7 lines 35-52**);

b) routing a periodic heartbeat message from the controlling software component to the plurality of processor-enabled peripheral devices to enable each of the plurality of processor-enabled peripheral devices to maintain its registered status (**col. 7 lines 35-52**); and

c) if necessary, routing messages from the controlling software component to one or more of the plurality of processor-enabled peripheral devices on a discrete basis over the CAN bus to control the one or more of the plurality of processor-enabled peripheral devices (**col. 3 lines 20-24, col. 6 lines 7-28**).

Dea fails to explicitly teach devices communicate over a controller area network (CAN) bus.

However, Goodman discloses devices communicate over a controller area network (CAN) bus (**Paragraph [0004], [0028]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Dea and Goodman because it provides an optimized way of transferring data between computer system hardware components.

2. As per claim 2, Dea teaches the method further comprising causing the controlling software component to consecutively receive frames of a multi-frame message transmitted from one of the plurality of processor-enabled peripheral devices (**col. 7 lines 36-53**).

3. As per claim 3, Dea teaches the method wherein the routing of messages from the controlling software component to one or more of the plurality of processor-enabled peripheral devices on a discrete basis to control the one or more of the plurality of processor-enabled peripheral devices comprises routing messages each having a like header to the one or more of the plurality of processor-enabled peripheral devices on a discrete basis to control the one or more of the plurality of processor-enabled peripheral devices (**col. 7 lines 36-53, col. 9 lines 19-48**).

4. As per claim 4, Dea teaches the method wherein the routing of messages each having a like header to one or more of the plurality of processor-enabled peripheral devices on a discrete basis to

control the one or more of the plurality of processor-enabled peripheral devices comprises routing messages each having a common header component and a CAN header component to the one or more of the plurality of processor-enabled peripheral devices on a discrete basis to control the one or more of the plurality of processor-enabled peripheral devices (**col. 7 lines 36-53, col. 9 lines 19-48**).

5. As per claim 5, Dea teaches the method wherein the routing of messages each having a common header component and a CAN header component to the one or more of the plurality of processor-enabled peripheral devices on a discrete basis to control the one or more of the plurality of processor-enabled peripheral devices further comprises routing messages each having a common header component and a CAN header component without specific knowledge by the controlling software component of the CAN header component (**col. 7 lines 36-53, col. 9 lines 19-48**).

6. As per claim 6, Dea teaches a method of communicating over a network bus, comprising:

a) routing a registration message from a processor-enabled peripheral device to a controlling software component (**col. 3 lines 20-24, col.7 lines 35-52**);

b) at the processor-enabled peripheral device, periodically receiving a heartbeat message from the controlling software component subsequent to the routing of a registration message from a processor-enabled peripheral device to a controlling software component (**col. 7 lines 35-52**); and

c) receiving at the processor-enabled peripheral device discrete control messages that are transmitted from the controlling software component (**col. 3 lines 20-24, col. 6 lines 7-28**).

Dea fails to explicitly teach devices communicate over a controller area network (CAN) bus.

However, Goodman discloses devices communicate over a controller area network (CAN) bus (**Paragraph [0004], [0028]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Dea and Goodman because it provides an optimized way of transferring data between computer system hardware components.

7. As per claim 7, Dea teaches the method wherein the receiving at the processor-enabled peripheral device discrete control messages that are transmitted from the controlling software component

comprises filtering the transmitted control messages at the processor-enabled peripheral device to enable only the discrete control messages intended specifically for the processor-enabled peripheral device to reach the processor-enabled peripheral device (**col. 7 lines 36-53, col. 9 lines 19-48, col. 10 lines 1-11**).

8. As per claim 8, Dea teaches the method wherein the filtering of the transmitted control messages at the processor-enabled peripheral device to enable only the discrete control messages intended specifically for the processor-enabled peripheral device to reach the processor-enabled peripheral device comprises filtering the transmitted control messages at the processor-enabled peripheral device via a hardware filter to determine whether the transmitted control messages are for a certain type of processor-controlled peripheral device, and filtering the transmitted control messages at the processor-enabled peripheral device via a software filter to determine processor-controlled peripheral device numbers from respective message CAN headers (**col. 3 lines 34-38, col. 10 lines 1-11**).

9. As per claim 9, Dea teaches the method further comprising receiving at the processor-enabled peripheral device all message frames following the processor-enabled peripheral device type and number information subsequent to the filtering of processor-enabled peripheral device type and number information from the discrete control messages intended specifically for the processor-enabled peripheral device (**col. 9 lines 6-18**).

10. As per claim 10, Dea teaches the method wherein the filtering the transmitted control messages at the processor-enabled peripheral device to enable only the discrete control messages intended specifically for the processor-enabled peripheral device to reach the processor-enabled peripheral device is invisible with respect to the controlling software component (**col. 9 lines 49-64**).

11. As per claim 11, Dea teaches the method further comprising, at the processor-enabled peripheral device, consecutively receiving frames of a multi-frame discrete control message (**col. 7 lines 36-53, col. 9 lines 19-48, col. 9 lines 6-18**).

12. As per claim 12, Dea teaches a network bus for enabling a controlling software component to communicate discretely with each of a plurality of processor-enabled peripheral devices irrespective of whether the processor-enabled peripheral devices are like devices (**col. 5 lines 1-16**), comprising:

a) a processor for routing control messages between the controlling software component and the plurality of processor-enabled peripheral devices (**col. 6 lines 7-28**);

b) a plurality of bus lines for connecting the processor to the controlling software component and the plurality of processor-enabled peripheral devices (**col. 6 lines 7-28**); and

c) the processor for enabling the control messages to be discretely transmitted from the controlling software component to one or more of the plurality of processor-enabled peripheral devices (**col. 4 line 61 to col. 5 line 16**).

Dea fails to explicitly teach devices communicate over a controller area network (CAN) bus.

However, Goodman discloses devices communicate over a controller area network (CAN) bus (**Paragraph [0004], [0028]**).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Dea and Goodman because it provides an optimized way of transferring data between computer system hardware components.

13. As per claim 13, Dea teaches the CAN bus wherein the processor is programmed with a software switch for enabling the controlling software component to consecutively receive frames of a multi-frame message transmitted from one of the plurality of processor-enabled peripheral devices (**col. 7 lines 36-53, col. 9 lines 6-18**).

14. As per claim 14, Dea teaches the CAN bus wherein the processor is programmed for enabling transmission of multi-frame CAN bus messages (**col. 9 lines 6-18**).

15. As per claim 15, Dea teaches the CAN bus wherein the processor is further for generating a CAN header component for each of the control messages transmitted from the controlling software component to enable the control messages to be discretely transmitted from the controlling software component to

one or more of the plurality of processor-enabled peripheral devices (**col. 2 line 66 to col. 3 line 10, col. 7 lines 36-53, col. 9 lines 19-48**).

16. As per claim 16, Dea teaches the CAN bus wherein the processor is further for causing frames of a multi-frame message transmitted to one of the plurality of processor-enabled peripheral devices from the controlling software component to be consecutively received at the one of the plurality of processor-enabled peripheral devices (**col. 7 lines 36-53, col. 7 lines 36-53, col. 9 lines 19-48**).

17. As per claim 17, Dea teaches the CAN bus wherein the processor and the plurality of bus lines are implemented on a controlling board of a wireless base station (**col. 6 lines 2-15**).

(10) Response to Argument

Regarding appellant's arguments filed on October 22, 2007; the examiner summarizes the various points raised by the appellant and addresses responses individually.

Independent Claims 1, 6 and 12:

A) Appellant argues that there is no suggestion to combine the references (see brief page 6, lines 7-8 and 13-15).

In response to A), Examiner respectively disagrees. Applicant is reminded that claims must be given their broadest reasonable interpretation. Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Dea and Goodman because it provides an optimized way of transmitting commands and data among hardware components in a system. Furthermore, Appellant is also reminded that prior art in record may not necessarily consist(s) of the same elements as the claimed invention as long as said prior art in record performs same/similar functionality with respect to

the claimed invention. Common sense teaches, however, that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle, the fact that a combination was obvious to try might show that it was obvious under section 103. *KSR Int'l Co. v. Teleflex Inc.*, 2007 U.S. LEXIS 4745, (U.S. 2007). For the reasons given above, Examiner believes combining the teachings is proper and therefore, Dea and Goodman meet the scope of the claimed limitation as currently presented.

B) Appellant argues that Dea does not teach or suggest the use of a CAN bus (see brief page 7, lines 18-20).

In response to B) Appellant attention is directed to independent claim 1 rejection, Examiner indicated the shortcoming of Dea's teaching of not explicitly teach that devices communicate over a controller area network (CAN) bus. However, Goodman discloses devices communicate over a controller area network (CAN) bus (Paragraph [0004], [0028], [0036]; the bus interface 46 may comprise a controller area network (CAN) bus known in the art, which is a multi-drop network, having a standard access protocol and wiring standards...). Since Goodman teaches the shortcoming of Dea's teaching, then it would have been obvious to one of the ordinary skill in the art at the time of the applicants' invention to combine the teachings of Dea and Goodman because it provides an optimized way of exchanging data among various hardware components.

C) Appellant argues that Goodman does not teach or suggest a combination with the method of improving energy efficiency of Dea (see brief page 8, lines 1-2).

In response to C) Limitations appearing in the specification but not recited in the claim are not read into the claim. E-Pass Techs., Inc. v. 3Com Corp., 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) (Claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily). In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550551 (CCPA 1969). See also In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow"). The limitation" **improving energy efficiency**" is not claimed and upon further review

of the instant application disclosure, there is no teaching for this limitation. Examiner introduced Goodman as a secondary reference to teach the limitation of "**devices communicating over a controller area network (CAN)**" as stated in response to argument B) and not to teach improving energy efficiency which is taught by Dea (col. 7 lines 35-52). Since this limitation related to improving energy efficiency is taught by Dea, therefore prior art in record meets the scope of the claimed limitation.

D) Appellant argues that Dea and Goodman are NOT analogous arts and are NOT in the same field of endeavor (see brief page 8, lines 12-13).

In response to D) It has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Dea's teaches a system and a method for reducing power consumption of computers in computer network by monitoring various systems within a network wherein a link beat enables said network to periodically poll the stations on said network to sense for a heartbeat, e.g., whether generally the various stations are on said network and remain operative (col. 7 lines 35-52). Meanwhile, Goodman teaches a method for enabling communication among nodes in a system. A main system controller can transmit commands and data to devices in the system using the CAN message protocol (Paragraph [0004]), wherein CAN objects are capable of transmitting messages to nodes on the interface 46 using a standard network transmission protocol, such as Transmission Control Protocol/Internet Protocol (TCP/IP), Ethernet protocols, proprietary communication protocols, etc. to communicate over a CAN interface (Paragraph [0036]). Therefore, at the very least, it is evident that Dea and Goodman are analogous arts and in similar fields of endeavor.

Since independent claims 6 and 12 recite same limitations as independent claim 1, then the combined teachings of Dea and Goodman meet the scope of their limitations as currently presented for the reasons given above for independent claim 1.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

NATHAN FLYNN
SUPERVISORY PATENT EXAMINER

Mohamed Wasel
January 3, 2008

Conferees:

NATHAN FLYNN
SUPERVISORY PATENT EXAMINER

Nathan Flynn
Supervisory Primary Examiner
Technology Center 2100

NATHAN FLYNN

Lynne H Browne
Appeal Practice Specialist, TQAS
Technology Center 2100